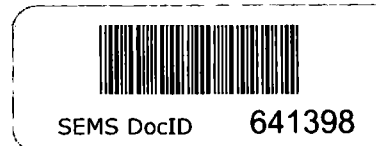


Signed Consent Agreement
2/13/85

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

IN THE MATTER:) RCRA DOCKET NO: I-85-1094
)
Environmental Protection)
Agency)
)
v.) ADMINISTRATIVE ORDER
) BY CONSENT
)
Carroll Products, Inc.)
and)
Sun Chemical Company)
)
Proceedings under §3013 of)
the Resource Conservation)
and Recovery Act, 42 U.S.C.)
§6934)

RCRA RECORDS CENTER
FACILITY Agency Realty
I.D. NO. R0872092216
FILE LOC. R-16
OTHER _____



PRELIMINARY STATEMENT

This Administrative Order by Consent (Consent Order) is entered into voluntarily by and between the United States Environmental Protection Agency (EPA) and Respondent Carroll Products, Inc. and Respondent Sun Chemical Company. The Consent Order concerns the submission and implementation of a proposal for the monitoring, testing, analysis and reporting concerning hazardous wastes at and/or migrating from the Carroll Products facility in Wood River Junction, Rhode Island.

JURISDICTION

This Consent Order is issued pursuant to the authority of Section 3013 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6934, as vested in the Administrator of EPA

and delegated to the Regional Administrator. Moreover, Carroll Products, Inc. and Sun Chemical Company waive any defense to the jurisdiction asserted in this Consent Order for the purpose of any subsequent proceeding for the enforcement of this Consent Order.

PARTIES

This Consent Order shall apply to and be binding upon the following parties:

- a. The United States Environmental Protection Agency;
- b. Carroll Products, Inc;
- c. Sun Chemical Company; and
- d. any and all successors of and assigns of the above-named parties.

STATEMENT OF PURPOSE

In entering into this Consent Order, the common objective of EPA, Carroll Products, Inc. and Sun Chemical Company are:
(1) to identify and evaluate the nature and extent of the hazard to human health and the environment that may be presented by the presence and release of any hazardous wastes at the Carroll Products facility through the submission and implementation of the proposal described herein and (2) to formulate alternatives for remedial action to eliminate or to reduce to acceptable levels any hazard to human health or the environment caused by the presence or release of hazardous wastes.

*
Performance

37
e

FINDINGS OF FACT

1. The Concerned site ("the Site") is located in Wood River Junction, Rhode Island. The Site is an approximately triangular piece of land bounded by Route 91 to the northwest, the Pawcatuck River to the east, and Boston-New York Amtrack line to the south.
2. The Site has been operated by Carroll Products, Inc. since 1971. Operations at the Carroll Products Site has included the manufacture of institutional soaps, detergents, dust control products, and a chemical (diazochloride) used for printing inks and printed circuitry.
3. Prior to 1971, the Site was occupied by Sun Chemical Corporation. Information on file with the EPA indicates that Sun Chemical used the following raw materials in its process: methanol, formaldehyde, powdered lead and zinc, mineral spirits, urea, glyoxal resins, and various other solvents.
4. On or about March 31, 1984, there was a fire at the Site that resulted in the spillage of approximately five drums of methylene chloride at the Site. Also during inspections conducted by EPA at the Site on April 3 and June 12, 1984, it was determined that prior to and since November 19, 1980, hazardous wastes had been stored on-site for periods greater than ninety (90) days in fifty-five (55)

- gallon drums and other storage containers.
5. As a result of the above-referenced activity, Carroll Products was a storage facility for wastes identified as hazardous pursuant to Storage Rule No. 3.05 of the State of Rhode Island Rules and Regulations for Permitting and Operating Hazardous Waste Treatment and Storage Facilities.
 6. During an inspection conducted by EPA on October 22, 1984, it was determined that Carroll Products had ceased the production of institutional soaps, detergents, dust control products, and diazochloride. In addition, it was determined that the company only produced iron oxide pigment blends and that this pigment blend production did not generate hazardous wastes.
 7. Two (2) lagoons are located at the Site: an "active lagoon" and an "inactive lagoon." The lagoons are located adjacent to the wire fence that borders the eastern side of the Site. The active lagoon is approximately 30,000 square feet in size and is part of a marshland that is approximately one acre in size. The inactive lagoon lies directly south of the active lagoon and is approximately 14,000 square feet in size.
 8. EPA has taken both liquid and sediment samples from the lagoons. Field sampling was conducted on May 7, 1981 and April 4, 1984. Laboratory analyses of these samples show the presence of hazardous constituents, as defined in 40

C.F.R. Part 261, Appendices VII and VIII, in the lagoon material. The results of these analyses and the chemicals detected are summarized below:

A. ACTIVE LAGOON

Liquid Samples

Hazardous Constituents

May 7, 1981

Levels Detected (ppb)

Benzene	14
Carbon Tetrachloride	6
Chlorobenzene	3
Cresol	4
Methylene Chloride	130
Phenol	3
Toluene	69
2,4,6 trichlorophenol	6

Sediment Samples

Hazardous Constituents

May 7, 1981

April 4, 1984

Levels Detected (ppb)

Benzene	4500	7200
Chlorobenzene	19	55
Chloroform	18	-
1,2 dichloroethylene	9	-
Methylene Chloride	640	1100
Tetrachloroethylene	4	47
Toluene	21	45
Trichloroethylene	-	33

Levels Detected (ppm)

Arsenic	-	1.6
Beryllium	-	0.4
Cadmium	-	2.1
Chromium	-	30
Lead	110	120
Mercury	-	4.8
Nickel	-	62
Silver	-	1.6

Others

Copper

- 51

Zinc

260

B. INACTIVE LAGOON

Sediment Samples

May 7, 1981

April 9, 1984

Hazardous Constituents

Levels Detected (ppb)

Benzene	-	140
Chlorobenzene	-	280
1,2 dichloroethylene	-	16
Methylene Chloride	-	700
Tetrachloroethylene	-	29
Trichloroethylene	17	39

Levels Detected (ppm)

Arsenic	-	15.8
Beryllium	-	0.6
Cadmium	-	2.3
Chromium	-	380
Lead	16000	3800
Mercury	-	1.3
Nickel	-	18
Selenium	-	0.2

Others

Copper	-	106
Zinc	6100	950

9. One (1) deep well and four (4) shallow wells are located on the Site. The deep well is Carroll Product's water supply well and is approximately 25 feet in depth. The four (4) shallow wells are one and one-quarter (1-1/4) inch galvanized pipe groundwater monitoring wells and are approximately eight (8) to twelve (12) feet in depth.
10. EPA has taken samples from the wells identified in paragraph 9 above. Well-water sampling was conducted on October 20, 1981 and April 3, 1984. Laboratory analyses

of these samples show the presence of hazardous constituents, as defined in 40 C.F.R. Part 261, Appendix VIII. The results of these analyses and the chemicals detected are summarized below:

A. DEEP WELL

October 20, 1981

April 3, 1984

Hazardous Constituents

Levels Detected (ppb)

Benzene
Methylene Chloride
Toluene

-
58
14

9
620
-

Levels Detected (ppm)

Arsenic
Barium
Cadmium
Chromium
Lead
Mercury
Nickel
Selenium

<2
<100
2
<20
20
<0.2
<20
<2

13
-
10
<100
<100
<0.2
90
<5

Others

Acetone
Cobalt
Copper
Zinc

-
2
8
38

<50
<50
20
670

B. SHALLOW WELLS

April 3, 1984

Levels Detected (ppb)

Hazardous Constituents

	<u>Well #1</u>	<u>Well #2</u>	<u>Well #3</u>	<u>Well #4</u>
Benzene	3	4	3	6
Chlorobenzene	-	2.5	-	-
Chloroform	-	1	-	-
1,2 dichloroethylene	-	8	3	19
Methylene Chloride	160	1800	-	17
1,1,1 trichloroethane	-	1	-	-
Trichloroethylene	-	4	-	11

Other

Acetone

- - - 390

11. On May 7, 1981, EPA took one wet soil sample. The soil

sample was taken from a disposal area behind the Site's mixing house which is located in the southwestern corner of the Site. Laboratory analysis of these samples show the presence of hazardous constituents, as defined in 40 C.F.R. Part 261, Appendix VIII. The results of this analysis and the chemicals detected are summarized below:

Hazardous Constituents

Benzene
Chlorobenzene
Chloroform

Levels Detected (ppb)

970
1200
9700

Others

Xylene

9700

12. The hazardous constituents listed in paragraphs 8, 10 and 11 are hazardous wastes as defined in RCRA §1004(5), 42 U.S.C. §6904(5). These constituents have been shown in scientific studies to have adverse effects on human health.
13. The well sampling data listed in paragraph 10 shows that hazardous wastes have migrated to groundwater.
14. The continued presence of hazardous wastes in the Site's lagoons could result in the release of hazardous wastes and migration off-site by means of groundwater flow.
15. EPA believes that not enough information presently exists to reasonably ascertain the nature and extent of the

hazard associated with the Site.

EPA has determined that there is a need to obtain significant further information to identify and evaluate all possible sources of contamination at the Site, to evaluate the Site's subsurface conditions with respect to hydrogeology and geology, and to assess environmental effects at and adjacent to the Site to ascertain said hazard.

DETERMINATIONS

1. The Site is a facility or site within the meaning of Section 3013 of the Resource Conservation and Recovery Act, 42 U.S.C. §6934.
2. Hazardous wastes have been stored or disposed of at the Site.
3. The presence of hazardous wastes at and the release of hazardous wastes from the Site may present a substantial hazard to human health or the environment.
4. Respondent Carroll Products, Inc. is the present owner and operator of the Site.
5. Respondent Sun Chemical Company is the previous owner and operator of the Site.
6. The Site is not in operation as of the signing of this Consent Order; the present owner of the Site could not reasonably be expected to have actual knowledge of the

presence of hazardous waste at the Site and of its potential for release; Sun Chemical Company is the most recent previous owner or operator of the Site who could reasonably be expected to have such knowledge.

CONSENT AGREEMENT

1. Respondent Carroll Products, Inc. and Respondent Sun Chemical Company (Respondents) admit to the jurisdiction of EPA to require the actions agreed to herein under the authority of RCRA, Section 3013, 42 U.S.C. §6934.
2. Respondents agree that sufficient factual and legal bases exist to support EPA's requirements herein.
3. Respondents waive their right to a hearing on any issue of fact or law or requirement set forth herein, unless specifically provided for to the contrary.

ORDER

Accordingly, Carroll Products, Inc., Sun Chemical Company and EPA agree, and EPA hereby orders pursuant to Section 3013 of RCRA, 42 U.S.C. §6934, that Carroll Products, Inc. and Sun Chemical Company shall prepare and submit to EPA, and, upon its approval, implement a proposal for monitoring, testing, analysis, and reporting of hazardous wastes on and emanating from the Site. Said proposal shall also include a section evaluating remedial alternatives consistent with RCRA and the regulations promulgated thereunder.

*

I. PROPOSAL CONTENTS

The proposal shall be inclusive enough to address, but not necessarily be limited to, the following:

A. Review and Assessment of Existing Data

The proposal shall include the results of a review of all existing information and engineering data for the Site. The objective of this review is to identify in detail in the proposal any inadequacies or omissions in the existing information on the Site. Based on the results of this review, the proposal shall include among the tasks described below a list of specific data needs and a set of recommendations of how these needs will be addressed. This review shall specifically analyze the suitability and adequacy of the existing data for determination of the following:

1. The types and quantities of hazardous wastes disposed of at the Site;
2. Past disposal practices employed by the facility operators at the Site;
3. The topographic features in identified waste management areas and pertinent hydrogeological features of the Site;
4. The direction and rate of groundwater flow through the Site, including development of a groundwater table contour map;
5. The migration of the contaminants on the Site, their ultimate environmental fate, and their

potential for causing future environmental degradation on the Site; and

6. The sources, extent, and composition of contaminants in soils, groundwater, surface water, and sediments on the Site.

B. Hydrogeological Investigation

1. The proposal shall describe a program capable of determining the rate and extent of migration of hazardous wastes or hazardous constituents in the groundwater and shall meet the conditions discussed in paragraphs 2-7 below.
2. The proposal shall include a plan designed to generate the following information:
 - a) A description of the regional geologic and hydrogeologic characteristics ~~in the vicinity~~, including:
 - i) local stratigraphy (soil and unconsolidated sediment cover, bedrock, structural features, and formation origins);
 - ii) regional hydrogeological flow patterns; and
 - iii) areas of recharge and discharge;
 - b) An analysis of any topographic or geomorphic features that might influence the groundwater flow system; and
 - c) A classification and description of the hydrogeologic properties of the affected hydrogeologic units found at the Site including:
 - i) hydraulic conductivity, porosity;
 - ii) texture, uniformity, lithology; and
 - iii) an interpretation of hydraulic interconnections between saturated zones;

- d) Preparation of at least two (2) geologic cross sections at right angles to one another showing the extent (depth, thickness, lateral extent) of all hydrogeologic units within the Site property, identifying:
 - i) sand and gravel deposits in unconsolidated deposits;
 - ii) zones of applicable significant fracturing or channeling in consolidated deposits;
 - iii) zones of higher permeability or lower permeability that might direct or restrict the flow of contaminants;
 - iv) perched aquifers; and
 - v) the uppermost aquifer (defined as the first saturated zone that may have a potential for migration of contaminants);
- e) A description of the results of water level measurement procedures or fluid pressure monitoring procedures, including;
 - i) water level contour maps and vertical gradient sections;
 - ii) well or piezometer hydrographs;
 - iii) an interpretation of the flow system, including the vertical and horizontal components of flow; and
 - iv) an interpretation of any change in hydraulic gradients;
- f) A description of manmade influences that may affect the hydrogeology of the site, identifying:

- i) local water supply and production wells with an approximate schedule of pumping; and
 - ii) manmade hydraulic structures (pipelines, french drains, ditches, etc.)
3. The proposal shall include a description of the field methods and other information sources proposed for the study and a summary of which data will be collected by each method. The proposed methods should include, but are not limited to:
- a) A program of soil borings, as required to adequately describe the subsurface geology of the Site. The program should provide for the presence of a qualified geologist or geotechnical engineer to log and describe the materials encountered during the boring. The program should also describe the methods proposed to stabilize holes until monitoring wells are installed;
 - b) A sufficient number of piezometers to characterize groundwater depth and gradient (both horizontal and vertical) over the entire affected area of the site; and
 - c) The use of slug and/or pump tests as appropriate to determine hydraulic conductivity;

4. The proposal shall identify a list of proposed indicator parameters capable of detecting release of hazardous wastes or hazardous constituents into the groundwater. The parameters should be representative of constituents at least as mobile as the most mobile constituents that could reasonably be derived from the Site's wastes and should be chosen after considering:

- a) the types, quantities, and concentrations of constituents in wastes managed at the facility;
- b) the mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area exclusive of aqueous phases;
- c) the detectability of the indicator parameters, waste constituents or reaction products in groundwater; and
- d) the concentration or value and the natural variation (known or suspected) of the proposed monitoring parameter in background (upgradient) groundwater.

5. The proposal shall include the basis for selecting each proposed indicator parameter, including any analyses or calculations performed. The basis for selection must include chemical analysis of the facility's waste and/or leachate as appropriate.

The proposal shall also include parameters to characterize the site-specific chemistry of groundwater at the site, including but not limited to the major anions and cations that make up the bulk of dissolved solids in water (i.e., Cl^- , Fe, Mn, Na^+ , SO_4^- , Ca^+ , Mg^+ , K^+ , NO_3^- , PO_4^- , silicate, ammonium)

6. The proposal shall provide specifications and design drawings of:
 - a) Proposed well locations;
 - b) Size and depth of wells;
 - c) Well-intake design, including screen slot size and length; filter pack materials and method of filter-pack emplacement. The location of the screens shall be based on the highest readings of an organic vapor detector (HNU or equal).
 - d) Type of proposed well casing and screen materials. The choice of well materials shall be made in light of the parameters to be monitored for and the nature of the leachate that could potentially migrate from the facility. The well materials should: 1) minimize the potential of adsorption and desorption of constituents from the samples; and 2) maintain their integrity

for the expected life of the system (at least thirty years);

- e) Methods used to seal the well from the surface and prevent downward migration of contaminants through the well annulus; and
- f) Description of the methods or procedures used to develop the wells.

7. When developing this plan, Respondents shall refer to EPA guidance documents to determine the methods and materials that are acceptable to the Agency.

C. Soils, Surface Water and Sediments Investigation

The proposal shall include a program to investigate and determine the location and extent of contamination of on-Site soils, surface waters, and sediments.

This program shall include, but not be limited to:

- 1. a description of all proposed sampling locations; and
- 2. the rationale for the selection of and number of all proposed soil, surface water, and sediment locations.

D. Sampling and Analysis Plan

The proposal shall include a sampling and analysis plan capable of yielding representative groundwater, soils, surface water, and sediment samples. All media sampling shall conform to EPA-approved sampling procedures and protocols. The plan shall include a description of the following elements.

1. Sampling

- a) Procedures for locating and identifying on a base map all sample locations;
- b) Procedures for decontamination of non-dedicated sampling equipment between sampling events;
- c) Sample handling and preservation techniques (including a provision for field-filtration of groundwater and surface samples, as appropriate);
- d) Sample withdrawal techniques. Sampling equipment and materials shall be selected to yield representative samples in light of parameters to be monitored for;
- e) Chain of custody procedures to be used for all phases of sample management;

- f) Procedures whereby EPA may, upon request, receive split samples of any sampling conducted pursuant to the proposal, which samples shall be preserved, packaged, and labeled in accordance with the QA/QC plan;
- g) Proposed method for data organization and presentation.

In addition to the elements discussed above, the following elements shall be incorporated in the groundwater sampling section of the proposed sampling and analysis plan:

- h) Well evacuation procedures including volume to be evacuated prior to sampling and handling procedures for purged well water;
- i) The sampling protocol shall include field measurement of pH, conductivity, and temperature at each well prior to sampling for other parameters; (these measurements shall be applicable to surface water sampling, also);
- j) Procedures for measuring groundwater elevations at each sampling event;
- k) Procedure to determine whether contamination has occurred. The procedure should include

a proposed method (statistical or otherwise) to compare upgradient and downgradient well water that provides a reasonable balance between probability of falsely identifying and failing to identify contamination;

2. Analysis

Laboratory analytical techniques for testing constituents in soils, sediments, groundwater, and surface waters shall include EPA-approved analytical methods and quality assurance quality control procedures.

E. Quality Assurance/Quality Control

The proposal shall contain a plan to be used for all sampling to be conducted under this Order, which plan shall address quality assurance and quality control (hereinafter "QA/QC plan").

Environmentally related measurements are defined as all field and laboratory investigations that generate data. Respondents shall use quality assurance, quality control, and chain-of custody procedures consistent with EPA Guidance Document QAMS-005/80. The proposal shall also ensure that EPA personnel are allowed access to the laboratory utilized by Respondents for analyses of samples collected

during the monitoring program. In addition, said plan shall provide that the laboratory shall analyze samples provided by EPA under its Hazardous Waste Performance Evaluation Program. The QA/QC plan shall address the following points:

1. QA objectives for measurement data, in terms of precision, accuracy, completeness, representativeness, and comparability;
2. Sampling procedures;
3. Sample custody;
4. Calibration procedures, references and frequency;
5. Internal QC checks and frequency;
6. QA reports to EPA;
7. Preventive maintenance schedules;
8. Specific procedures to be used to routinely assess data precision, representativeness, comparability, accuracy and completeness of specific measurement; and
9. Corrective action.

F. The proposal shall include a provision for the identification, development and evaluation of alternatives designed to remedy the presence and potential or actual release of hazardous wastes from the Site. Remedial alternatives shall be developed to meet the requirements of RCRA and regulations promulgated thereunder. In evaluating the remedial alternatives, the following factors shall be considered:

1. Consistency with the technical requirements and intent of RCRA and regulations promulgated thereunder;
2. Use of established technology;
3. Evaluation in terms of engineering implementation and constructability;
4. An assessment of each alternative in terms of the extent to which it is expected to mitigate damage to and provide protection of public health and the environment; and
5. An analysis of any adverse environmental impacts caused by implementation of the alternative.

II. GENERAL PROVISIONS

A. Joint and Several Liability

Carroll Products, Inc. and Sun Chemical Company, in entering into this Consent Order, agree to work cooperatively with one another to satisfy all of its requirements. Carroll Products, Inc. and Sun Chemical Company do hereby specifically agree jointly and severally, to undertake all actions required of them by the terms and conditions of this Consent Order within the time periods specified herein.

B. Nonliability of EPA and Insurance

A. EPA shall not be liable for any injuries or damages to persons or property resulting from acts or omissions of Carroll Products, Inc. or Sun Chemical Company in carrying out the activities pursuant to this Consent Order, nor

shall EPA be held out as party to any contract entered into by Carroll Products, Inc. or Sun Chemical Company in carrying out the activities pursuant to this Consent Order.

B. Sun Chemical Company agrees that it and independent contractors employed by it and/or Carrol Products to perform activities pursuant to this Consent Order shall maintain for the duration of their activities under this Consent Order general liability and automobile insurance with limits of ten million dollars, combined single limit, and Rhode Island Statutory Workman Compensation Insurance. Prior to the commencement of work, Sun Chemical Company shall provide EPA with a certificate of insurance and a copy of the insurance policy for approval by EPA.

C. Modification

Any modifications to this Consent Order shall be in writing and approved by the Regional Administrator; and any modifications to the proposal once it is approved and/or modified by EPA shall be in writing.

D. Other Laws

All actions required to be taken pursuant to this Order shall be performed in accordance with the requirements of all applicable State and Federal laws and regulations, including laws relating to occupational safety and health.

E. Site Access

Respondent Carroll Products, Inc. shall provide EPA and its representatives, including authorized contractors, access to the Site at all reasonable times for purposes of:

1. Monitoring the progress of activities taking place;
2. Verifying any data or information submitted to EPA;
3. Conducting investigations relating to contamination at or near the Site;
4. Obtaining samples at the Site; and
5. Inspecting and copying records, operating logs, contracts, or other documents required to assess the defendant's compliance with the Decree.

F. Retention and Availability of Information

Respondents shall preserve all records relating to the required activities at the Site until authorized by EPA to do otherwise. Those records include, but are not limited to, sampling, analyses, and chain-of-custody records, manifests, trucking logs, receipts, reports, correspondence and other documents produced in response to this Consent Order. Upon request by EPA, Respondents shall promptly make available all records and information relating to the required activities at the Site.

G. Reservation of Rights

EPA reserves the statutory authority to take such actions as may be necessary to respond to emergencies or to

threats to public health and the environment. Nothing in this Order shall be construed to limit such authority. Neither shall anything herein be construed to limit the rights of EPA pursuant to RCRA §3013, 42 U.S.C. §6934.

H. Dispute Resolution

If the Respondents object to any EPA decision made pursuant to this Order, they shall notify EPA in writing of their objections within five working days of receipt of this decision. The Parties shall then have an additional five working days from the receipt by EPA of the notification of objection to reach agreement. If agreement cannot be reached on disputed issues within this second five day period, the EPA decision shall be deemed final agency action for purposes of judicial enforcement or review. Noncompliance with the EPA decision shall be deemed to be noncompliance with this Order unless a Court overturns such decision on review.

I. EPA Response to noncompliance

If, in the course of performance of the actions required by this Consent Order, EPA determines that the Respondents have failed to comply materially with any of the provisions of this Consent Order, EPA shall submit to the Respondents written notice of such noncompliance, which notice shall

include a description of the actions needed to remedy the noncompliance and a schedule for carrying out such action. Such written notice shall be presumed valid and accepted unless the Respondents object in writing within five working days of receipt. If the Respondents fail to remedy noncompliance in accordance with the schedule set out in EPA's written notice, EPA may initiate enforcement action to ensure compliance, or EPA may itself perform the necessary activity and may seek to recover the costs thereof from the Respondents as well as any penalties or damages to which EPA may otherwise be entitled as a result of such noncompliance.

J. Delay in Performance/Stipulated Penalties

1. The parties agree that the timely completion of the work required by this Order is important. The parties to this Order shall use their best efforts and shall undertake all reasonable measures to ensure that the time requirements set forth in this Order are met.
2. If any event occurs which causes delay in the achievement of the requirements of this Consent Order, the Respondents shall have the burden of proving that the delay was caused by circumstances beyond the control of the Respondents which could not have been overcome by due diligence. The Respondents shall promptly

notify EPA's Designated Coordinator orally and shall, within seven (7) business days of oral notification to EPA, notify EPA in writing of the anticipated length and cause of the delay, the measures taken and/or to be taken to prevent or minimize the delay, and the timetable by which the Respondents intend to implement these measures. If the parties can agree that the delay or anticipated delay has been or will be caused by circumstances beyond the control of the Respondents, the time for performance hereunder shall be extended for a period equal to the delay resulting from such circumstances. The Respondents shall adopt all reasonable measures to avoid or minimize delay. Failure of the Respondents to comply with the notice requirements of this paragraph shall constitute a waiver of the Respondents' right to request a waiver of the requirements of this Consent Order. Increased costs of performance of the terms of this Consent Order or changed economic circumstances shall not be considered circumstances beyond the control of the Respondents. Delay in achievement of one interim step shall not justify or excuse delay in achievement of subsequent steps except where performance of the delayed task is necessary to achieve performance of the subsequent task and EPA determines that Respondents have made all efforts to

reachieve compliance with the established work schedule.

3. In the event that EPA and the Respondents cannot agree that any delay in achievement of the requirements of this Consent Order, including the failure to submit any report or document, has been or will be caused by circumstances beyond the control of the Respondents, the dispute shall be resolved in accordance with the provisions of paragraph H hereof.
4. Except as excused pursuant to Subparagraph J.2 above, Respondents shall be liable jointly and severally to pay the following stipulated penalties for failure to comply with any time deadlines established pursuant to this Consent Order, including any implementation schedules contained in proposals approved and/or modified by EPA:

<u>Period of Failure to Comply</u>	<u>Penalty Per Day</u>
1st - 14th day	\$ 250.00
14th - 28th day	\$ 500.00
Beyond 28th day	\$ 2,000.00

5. Any such penalty shall be due and payable by either Respondent ten (10) days following receipt of a written demand by EPA. Payment of any such penalty shall be made by certified check payable to Treasurer, United States of America, and mailed to the following address with a notation of the docket number of this

Consent Order:

EPA - Region I
P.O. Box 360197M.
Pittsburgh, PA 15251

A copy of said check shall be mailed to:

Regional Hearing Clerk, Room 2203
U.S. Environmental Protection Agency
JFK Federal Building
Boston, MA 02203

6. The stipulated penalties set forth above shall be in addition to any remedies or sanctions that may be available to EPA by reason of Respondents' failure to comply with the requirement of this Consent Order.

K. Designation of Coordinators

Robert Iulliucci shall serve as coordinator for Respondents and shall administer all actions called for by this Order. Thomas Michel or his designated successor shall serve as coordinator for EPA and shall be responsible for administration of EPA's responsibilities and for receipt of all written matter required by this Order.

III. REPORTING REQUIREMENTS

A. Submittal of Proposal

Within sixty (60) days of the signing of this Consent

Order by the Regional Administrator, Respondents shall submit to EPA for review and approval, a written proposal incorporating the items set forth above and shall include a proposal description, scope of work and schedule. The proposal description shall clearly and concisely describe the problems to be addressed, investigation objectives, long-range investigative approach to be used, reporting expectations and other information that will assist with evaluation of investigation priorities and the proposal. The scope of work shall describe proposed work tasks, address all issues raised in the proposal description, be technically specific, and contain sufficient detail to enable determination of goals, needs, direction, status and proposed schedule. Each work task described in the scope of work shall include, where applicable, descriptions of: technical approach; tests measurements, sampling and analyses planned; analytical techniques proposed; equipment to be used; design and construction of environmental monitoring sites; data needs; quality assurance/quality control plans; and means and frequency of reporting to EPA.

B. Review, Modification and Implementation of Proposal

1. Upon receipt of the proposal from Respondents, EPA will review said proposal and approve or disapprove it. In the event EPA does not approve the proposal, EPA shall either:

- (a) direct Respondents to resubmit the proposal after making such modifications or additions to the proposal as are deemed reasonable by EPA to ascertain the nature and extent of the hazard on the Site and to evaluate alternatives for remediation, which resubmission shall be made within twenty days; or
 - (b) subject to Section II(H) independently make such modifications or additions to the proposal as are deemed reasonable to ascertain the nature and extent of the hazard at the Site and to evaluate alternatives for its remediation.
2. Within twenty days of receipt of notice of EPA approval of the proposal as first submitted, as resubmitted, or as modified by EPA, Respondents shall commence implementation of the approved proposal.

C. Reporting of Results

Within one hundred fifty (150) days of initiating implementation of the proposal, Respondents shall submit to EPA a final report containing all results, including all raw data collected, all calculations performed, and an interpretation of the findings.

This report shall be submitted to:

William Walsh-Rogalski
U.S. Environmental Protection Agency
Office of Regional Counsel
JFK Federal Building
Boston, MA 02203

This Administrative Order shall become effective upon the date of signature of the EPA Regional Administrator.

IT IS SO AGREED AND ORDERED BY:

Paul Keough, Acting
Michael R. Deland

Regional Administrator
U.S. Environmental Protection Agency
Region I

Feb 11, 1966
Date

The undersigned representative of each Respondent to this Consent Order certifies that he or she is fully authorized by the party he or she represents to enter into the terms and conditions of the Consent Order and to execute and legally bind that party to it.

It is so agreed by the undersigned respondents:

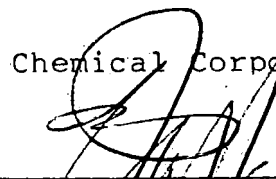
Carrol Products, Inc.

By: 

Title: Counsel

Date: Jan. 24, 1986

Sun Chemical Corporation

By: 

Title: Vice President & Secretary

Date: Jan 24, 1986